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ABSTRACT

The efforts of teacher training institutions in the southeastern United States to incorporate microcomputer literacy into their preservice and inservice curriculum during the fall quarter of 1981-1982 were studied. Field-tested surveys were mailed to deans/directors of education at 134 colleges or universities in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, South Carolina, and Tennessee. Follow-up letters were mailed to non-respondents 6 weeks later. The questionnaire addressed four major areas: (1) microcomputer literacy in the preservice and inservice program; (2) the general availability of hardware; (3) faculty, college, school, or department sponsorship of faculty development on the use of technology; and (4) policy concerning microcomputer literacy in teacher education. While the high (82%) response rate reflects an awareness of the developing technology, results suggest that teacher training institutions surveyed largely have not responded to the challenge of microcomputer technology, with the exception of Florida, which appears to be ahead of other states studied in integrating microcomputer technology into inservice training programs. Nearly one-half of the institutions have at least one machine available and have offered faculty inservice workshops on microcomputer technology. Three references are listed.
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MICROCOMPUTER LITERACY AND TEACHER EDUCATION IN THE SOUTHEASTERN UNITED STATES

by

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Microcomputer Literacy and Teacher Education in the Southeastern United States

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Across the United States, many institutions, agencies and schools are moving into the area of microcomputer applications. It is not unusual to find sixth graders who know more about RAM, ROM, BUS, Floppy Disks, and 48 K memory systems than most of their teachers. One author (Senter, 1981) suggested that there have only been four technologies in the history of mankind which have been truly significant to education: (1) speech, (2) writing, (3) printing, (4) and the computer. The videodisk may be the fifth.

There is a growing awareness of the value and the need for teachers to have an opportunity to become "computer literate." A number of major Universities have developed master's degree programs in education focusing on the use of microcomputers for instructional assistance (Electronic Learning, p. 16). Many have integrated microcomputers into the media laboratories and faculty offices.

At least one state has adopted a formal policy on educational computing. Section 229.8041 on the Functions of State Educational Agencies in Florida states that "It is the policy of the state to use computers and related technology to make instruction and learning more effective and efficient and to make educational programs more relevant to contemporary society." (page 21). The document goes on to describe the role of the Department of Education to assist school districts, community colleges and state universities to make appropriate use of computing.

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Traditionally it has been the college, school or department of education in the institutions of higher learning which has been responsible for the in-service and pre-service training of teachers. It was the purpose of this study to determine what these teacher training institutions in the southeastern United States were doing to incorporate microcomputer literacy into the pre-service and in-service curricula.

The study was limited to teacher education institutions in the eight state southeastern region of the United States. Surveys were developed, field tested, and mailed to Deans/Directors of Education at 134 colleges or universities in the area during the fall quarter of 1981-1982. Follow-up letters were mailed to non-respondents six weeks later. One hundred and ten (110) usable questionnaires were returned for an 82% response rate. Table 1 shows the response rate per state.

Table 1

Analysis of Response Totals by State

State	Number of Institutions	Number of Responses	Percent of Responses
Alabama	24	22	92%
Arkansas	15	15	100%
Florida	11	10	91%
Georgia	20	15	75%
Louisiana	18	14	78%
Mississippi	9	9	100%
South Carolina	15	11	73%
Tennessee	21	14	67%
TOTAL	134	110	82%

The survey questionnaire was structured to obtain information in four general areas: microcomputer literacy in the pre-service and in-service program, the general availability of hardware, the extent to which the C/S/D of education had sponsored faculty development programs on the use of technology, and policy concerning microcomputer literacy in teacher education.

Microcomputer Literacy in Teacher Education

One series of questions related to how current and future teachers were receiving instruction on the use of the microcomputer. Seventeen (17) institutions (15.5%) responded that they had developed and offered at least one specific course for the pre-service teacher to acquaint them with the use of the microcomputer for instruction and/or management in the classroom. Twenty-six (26) or 23.6% indicated that they had such a course for the in-service teacher.

Of course, one way to incorporate microcomputer literacy into the curriculum is as part of an existing educational media course. The survey included the following question: Does your institution offer a general educational media course or its equivalent which includes an introduction to the microcomputer? Of the 110 responses, 15.5% noted that they had such a course which was required at the undergraduate level, 18.2% offered such an elective at the undergraduate level, 4.5% offer a required graduate course, and 14.5% noted that they offered an elective graduate course of this type.

Availability of Hardware

Seventeen percent (17.3%) of the respondents indicated that they had an educational laboratory solely devoted to microcomputer equipment in the College/School/Department of education. Thirty-six percent (36.4%)

indicated that they had one or more microcomputers in their educational media laboratory. The majority of respondents indicated that they owned Apples (35.5%) or Radio Shack TRS-80s (21.8%). Others mentioned were Commodore Pets (9.1%), Sinclairs, IBSs, and Texas Instruments.

Microcomputer Applications

Nearly 50% of the respondents noted that they had at least one microcomputer in the educational unit. To determine what these machines were used for, other than in-service and pre-service instruction, the survey identified six general areas for which microcomputers have been and can be adapted. Table 2 includes those six areas and the percentage response for each.

Table 2

General Areas of Application of Microcomputer Technology in Colleges/Schools/Departments of Education

Area	Percent
Research and Development	47.3
Instructional Assistance	38.2
General Word Processing	34.5
Department Administration	25.5
Financial Management	13.6
Classroom Management	11.8

Faculty Interest and Faculty Development

Eight percent (8%) of the respondents indicated that there was no demand or interest on the part of their faculty concerning having microcomputers available. One has to wonder about those eight faculties. Nearly 71% indicated that there was either Some or Great Demand. One-fifth

described the demand as "Little." Somewhat less than half (47.3%) had offered in-service training for the college faculty on the use of microcomputers, and 50.9% indicated that they had at least one faculty member engaged in software programing for microcomputers.

Microcomputer Literacy and Educational Policy

Only four institutions indicated that they had a formal, written policy on the role of microcomputers in the pre-service or in-service training of elementary or secondary school teachers. Two of these were in Florida, one each in Tennessee and Louisiana. Two institutions currently offer a computer certification program for teachers, and both of these are in Florida. However, one-fifth of the respondents indicated that they are considering developing such a certification program, and there is at least one institution in each state so inclined. Seventy-one percent agreed that there is a need for a state or regional clearinghouse for education programs developed for microcomputers. One dissenter noted that the University of South Florida was already assigned that responsibility for that state.

Summary and Conclusions

There are some interesting findings nested in the above data. First, the fact that the survey obtained an 82% response is encouraging in that it does appear to reflect an interest, or at least an awareness, of the developing technology. The 18% which did not respond tended to be small, private institutions. Several non-random telephone follow-up calls suggest that the non-respondents are not incorporating microcomputer literacy in their teacher education program. Second, nearly half of the teacher education institutions have at least one machine available, and have offered faculty in-service workshops on microcomputer technology.

The results tend to suggest that teacher training institutions in the eight southeastern states largely have not responded to the challenge of microcomputer technology. The exception is Florida which tends to be ahead of its seven sister states in integrating microcomputer technology into in-service training programs, and it seems reasonable to assume that this leadership position is at least partially a function of the formal statutory requirement described above.

There is, in each state, at least one C/S/D of Education which reports making a conscious, institutional effort to incorporate microcomputer literacy into the teacher education programs. The technology has so much to offer in the way of enhanced communications, management, and instructional assistance that any institution which fails to develop in their student body an awareness, appreciation and skill in manipulating the hardware and software will very likely find its students obsolete as soon as they accept a teaching position. It may well be that the eight state area will need to pool its resources for faculty development programs in the area of microcomputer applications, and work cooperatively to urge institutional and state support of such programs for the in-service and pre-service teacher.

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